MODEL ROCKET NEWS

February, 1978
Vol. 18, No. 1

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UFOs - What Are They?

For several years Estes rocketeers have been requesting MRN articles and information on Unidentified Flying Objects or UFOs as they are popularity referred to. So, in an effort to provide you with the very best, most up to date data possible, we have decided to begin our series of UFO articles with a lesson on how to classify the sighting of a UFO, which is of course the basis of most UFO research.

Reports of unidentified objects in the sky occurred far back in history. The Bible contains several accounts of such phenomena, most notably the story in Ezekiel.

There is no way of determining how many observations of UFOs (Unidentified Flying Objects) have been made. We can't even tell how many reports were made of such observations since most reports were verbal.

Until recently most people were, by modern standards, uneducated. Many people tended to ignore the possibility of phenomena outside their own experience. Sometimes unexplained observations were disregarded as hallucinations or mistaken observations. If enough people observed and reported the same phenomenon, it was sometimes called a miracle.

Numerous attempts have been made to scientifically study Unidentified Flying Objects. Since these UFOs have not yet appeared on a regular schedule so that trained observers with the proper instruments can study them, there remain many questions which are unanswered by the occasional observation by trained personnel and/or cameras or other instruments.

UPI TELEPHOTO clm/

ZANESVILLE, OHIO: Zanesville barber Ralph Ditter made available to news media 2/6 photographs he had taken of what he described as an object from a different solar system than our own. Ditter, an amateur astronomer, made the pictures with a polaroid camera using an exposure of 1/125th of a second at f16.

One method of attempting to produce order out of the widely varied sightings is to classify what was observed. Since most observations are made at great distances, this method has built-in limitations. It is, however, one of the more specific approaches of study to these objects.

The classification of UFOs into five categories as presented by Jacques Vallee in Anatomy of A Phenomenon: Unidentified Objects in Space - A Scientific Appraisal[1] is a useful one. He groups the UFOs into five distinct categories based on their behaviors.

1. They can be seen (or perceived or imagined) as objects situated on the ground or close to the ground (tree height).

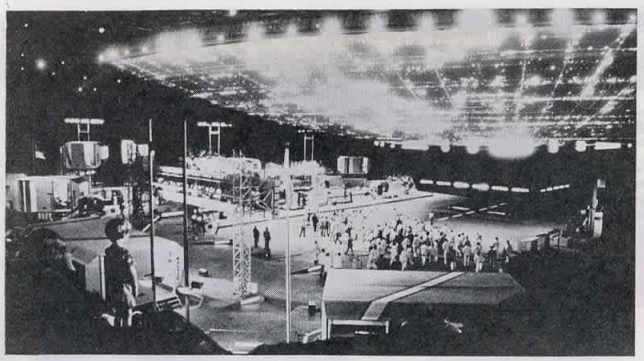
(Continued on next page)

PARENTS, TEACHERS, AND ROCKETEERS

Government regulations now require that an orange 4 inch by 4 inch diamond-shaped class "C" explosive label be affixed to all shipping cartons containing model rocket engines. Please do not be alarmed by this label. . .model rocket engines are SAFE!

The label is technically required by a law which is being appealed. Please note that class "C" signifies the safest classification under the government's own standards and that model rocket engines are considered less of a hazard than model airplane fuel or aerosol paints.

[1] Jacques Vallee, Anatomy of A Phenomenon: UFO's In Space - A Scientific Appraisal, New York: Ballantine Books, 1974



The majestic mother spaceship from the Cosmic Thriller, CLOSE ENCOUNTERS OF THE THIRD KIND.

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2. They appear as huge cylindrical forms surrounded by cloudlike formations, often vertical.
3. They can be described as aerial forms hovering in the atmosphere, or following a path interrupted by one point at which they appear stationary.
4. They can be seen as objects crossing the sky without such pause.
5. They can be observed as distant objects seen as lights.

For a period of years, the United States Air Force "studied" the UFOs, primarily to determine if they presented a threat to national security. The study has at various times been classified as secret and at other times has not had a secret classification. The study has been called by a number of names including "Project Sign", "Project Grudge", and "Project Blue Book".

The scientific consultant to "Project Blue Book" was was Dr. J. Allen Hynek, then Director of Ohio State University's McMillan Observatory. Dr. Hynek's definition of a UFO is the reported perception of an object or light seen in the sky or on the land and whose appearance, trajectory, and movements and luminescent behavior do not suggest a logical, conventional explanation. The appearance and behavior of the object is not only mysterious to the original percipients but which remains unidentified after close examination of all available evidence by persons technically competent to make common sense identifications, if such are possible.[2]

Dr. Hynek suggests that scientific analysis efforts be focused on the report of the UFO since the UFO is no longer available for study. He classifies UFO reports into:

1. Those reports in which the UFO is described as having been observed at some distance.
2. Those reports involving close range sightings (usually under 500 feet).

The reports of distant UFOs are classified into several categories.

1. Nocturnal lights
2. Daylight discs
3. Radar-visual observations.

The reported close range sightings are classified into several types.

1. Close Encounter of the First Kind - No interaction of the UFO with the environment (other than the viewer's perception).
2. Close Encounter of the Second Kind - Physical effects on both animate and inanimate material (as vegtation pressed down, burned, or scorched; tree branches broken; animals frightened. Inanimate objects, most often vehicles, are reported as becoming momentarily disabled, their engines killed, radios stopped, headlights dimmed or extinguished temporarily).
3. Close Encounter of Third Type - Presence of "occupants" in or about the UFO.

Dr. Hynek has extended his analyses to include evaluation of the report on the basis of Probability and Strangeness.

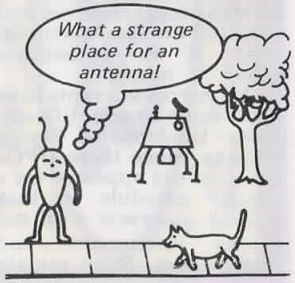
The Cosmic Connection-An Extraterrastrial Perspective,[3] is a very interesting book. Its author, Carl Sagan, is a well known scientist. Portions of this book are quite pertinent when studying UFOs or reports of UFOs.

Many books and articles have been written about UFOs. Some of the writers are well-known scientists who present the evidence very carefully and attempt to analyze the evidence very meticulously. Other writers supposedly have had close, firsthand contact with the crew of a UFO. A few writers appear to be individuals out to make some money out of the continuing interest in UFOs.

The evidence is not yet all in for study. Are there UFOs? Many thousands of responsible, honest people report having seen them. Photographs and radar sightings back up some of the reports. What are these objects observed by so many people?

Look up.
Watch.
And wonder.

Bob Jones St. Louis, MO



[2]J. Allen Hynek, The UFO Experience - A Scientific Inquiry, New York: Ballantine Books, 1974

[3]Carl Sagan, The Cosmic Connection, An Extraterrestrial Perspective

DESIGN OF THE MONTH *WINNERS*

Congratulations to another fine group of Estes Rocketeers for their outstanding DOM entries. First place winners will receive $75.00 merchandise certificates and honorable mentions will be awarded $10.00 certificates. Keep those entries coming, maybe you'll be our next winner!

NOVEMBER 1977 — First Place Four-Way-Tie: Kevin Owen Clark, Bolton, CT (Alteria 7 Transportor). Jeff Cinnamon, Cincinnati, OH (Star Seeker). Steve A. Galayda, Granite City, IL (Freebird). Thomas M. Payne Jr., Brooklyn, NY (X-36). Honorable Mention: Keith Furey, New City, NY (Neutron Super Nova). Jeff Wachtel, Tobias, NE (Gallaxy 500). Tom Spivey, Davis, CA (Beletgeuse). Warren Harris, Phoenix, AZ (Little Giant). Raymond Fowkes, Coalinga, CA (The Straw). Brian Payton, San Leandro, CA (North American F-86 SABRE). Karl Berner, Schenectady, NY (Astron Shooting Star). Steven Krygier, San Jose, CA (Arkton). T. Achimasi, San Diego, CA (Thunderchief). Scott Bonar, Orlando, FL (Pursuer). Eric Manio, S. San Francisco, CA (Falcon I). Mike Nesvik, Cedar Falls, IA (Transport 2). Steve Olson, E. Brunswick, NJ (X-15 Orbital Bomber). Edward Kim, Darien, IL (Egg Beater). Tom Wright, Prescott, AZ (Spin).

DECEMBER 1977 — First Place Five-Way-Tie: Larry Stein, Milwaukee, WI (The Force). Erik Johnson, Lakewood, CO (Alpha ALC-1). Thomas Harrison, Norfolk, VA (Mark I Mod O Digital Launch Controller). Jonathan Simpson, New York, NY (Star Blazer II). Dennis Cahill, Atwater, OH (Blue Heron). Honorable Mentions: John Ackatz, E. Troy, WI (The Force). Gary Nelson, Virginia Beach, VA (BP-TOO Sounder). David Gabet, Cromwell, IN (Red Comet). Charles Henry Babcock, Tempe, AZ (U.S.S. Arizona). Bruce Trimpop, Lovell, ME (Taran Transport Vor-Tex 7). Bill Casciano, Allentown, PA (Drifter Plus). Joe Ashby, Westford, MA (Model Rocket Display Shelf). Stefan Mundt, Florissant, MO (No Name). Guy Springfield, Lake Havasu City, AZ (Stormtrooper II). Samuel Shermann, Angwin, CA (Helicopter Recovery System.) Bobby Parham, Fort Dix, NJ (Launch Pad). David Reimer, Smithville, OH (U.S.S. Atlantic). Ronnie Bounds, Farber, MO (U.S. Starship Falcon). Eric Pivnik, Miami, FL (The Space Needle). Blake Hardegree, Colorado City, TX (The Inquisitor).

Dee Jenkins
Grand Junction, CO

IRON-ON DECALS *For Your T-Shirts, Wind breakers, and Range Jackets.*

Beginning in July 1977 all orders received on odd numbered months will be given a "FREE" iron-on decal for your t-shirts, windbreakers, or range jacket. These new Estes iron-ons will feature a variety of super-neat designs. You iron it on right at home to any surface containing 50% or more polyester. Remember these great new iron-ons will be available only with your return mail orders on the odd numbered months (July, September, November, January, etc.)

Help Us Publish Model Rocket News

Got any good ideas for MODEL ROCKET NEWS articles, technical information, cartoons, anecdotes, club news of unusual interest, etc? Then why not submit them to us for possible publication? Our constant aim is to make MRN a better, more interesting magazine, and you might be just the type of contributor we need.

If you send us photos, please make sure that you pack them between cardboard sheets so that they won't get creased in the mail. All contributions become the property of Estes Industries and cannot be returned. Address all material to: MRN Editor, Estes Industries, Penrose, Colorado 81240.

Should your article or photos be used in MRN, we'll reward your efforts and talent with an Estes merchandise certificate, the amount of which will be determined by the MRN editorial staff.

Hope to hear from you soon!

DON'T MISS AN ISSUE OF MODEL ROCKET NEWS

Model Rocket News is published six times yearly and inserted with return mail orders. To receive your bi-monthly copy simply place an order or request the latest issue from: Estes Industries, Att: MRN Editor, Penrose, Colo. 81240.

MRN PUBLICATION SCHEDULE

Vol.	No.	Month	Year
18	1	February	1978
18	2	April	1978
18	3	June	1978
18	4	August	1978

Note: We regret that the MRN is not available as a subscription as we do not have the internal staff and machinery to handle such a program at this time.

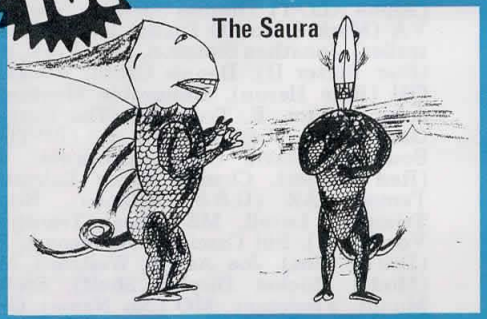
YOUR BEST BET IS TO OBTAIN MODEL ROCKET NEWS WITH YOUR NEXT ORDER!

ALIEN CREATURE CONTEST WINNERS

1st

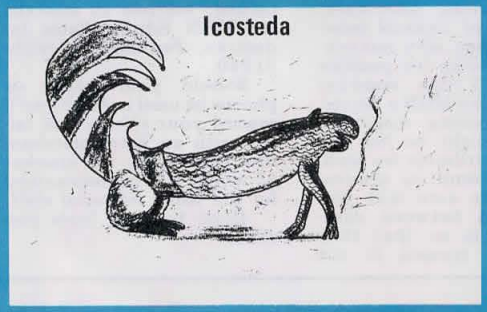
John Hawkins
Salem, IN.

The Saura



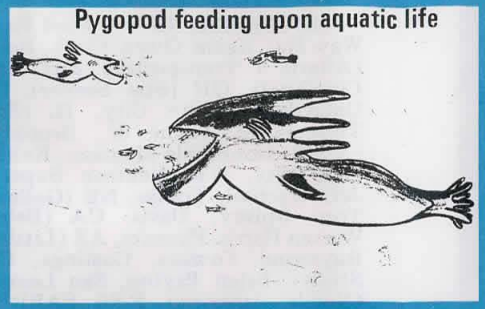
"Saura, Lacertilia trogloytes, native to the Central Core of the planet Jupiter in the Milky Way Galaxy, is a ferocious-looking creature. It is not, however, carnivorous. . .It is distinguished by short powerful legs, scales, and poisonous spines on its tail and dorsal fins. Male members of the species are characterized by three fins on the back, while females are indentified by the absence of such fins. . . .The Saura stands approximately one meter high, weighing around 90 kilograms."
–extracted from Encyclopedia Orbitus

Icosteda



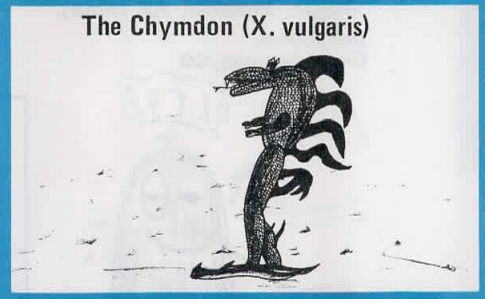
"Icosteda (Allotriognathoidea paniscus), a native to the jungles of the planet Kataga in the "white giant" Altair system of the Milky Way Galaxy, is hunted extensively for the fur on its hindquarters and tail. The Icosteda measures about 6 decimeters (3/5 meters) in length and feeds on the green jungle foliage found in Southwestern Kataga. The timid creature is stalked during the rain season by hunters from across the galaxy for its beautiful fur."
–extracted from The Altair Book of Fish and Wildlife, Vol.II

Pygopod feeding upon aquatic life



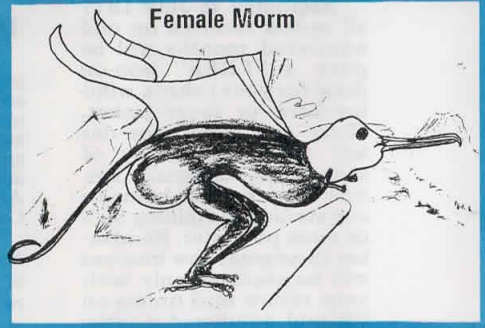
"Pygopod, (Pygopodiadae collei), an ancient fish of the seas of the planet Rhy in the Tau Ceti system of the Milky Way is known primarily for its skin–an extremely gritty, rough covering once used in many industries on Rhy. . .making the animal a valuable prize among fishermen."
–extracted from Encyclopedia Orbitus

The Chymdon (X. vulgaris)



"The most ferocious member of the Reptilia order known to man, the Chymdon (Xantusiidae vulgaris) is found in the Andromeda Galaxy, with the primary concentration of the species being on the planet Quotar, a barren planet on the outreaches of the 72 Upsilion triple-star system."
–extracted from Encyclopedia Orbitus

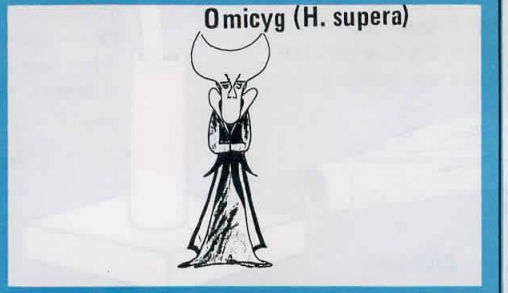
Female Morm



"Morm (Chiroptera pleuranectodii). Perhaps the most elusive creature in the universe, the oxygen-breathing Morm of the planet Hypost in the Great Hurcules Cluster is indeed a paradox. Although classified as a bird, the Morm gives birth to live young, but there the relationship to the mammals ends." –extracted from Great Hurcules Cluster Book of Rare and Extinct Animals.

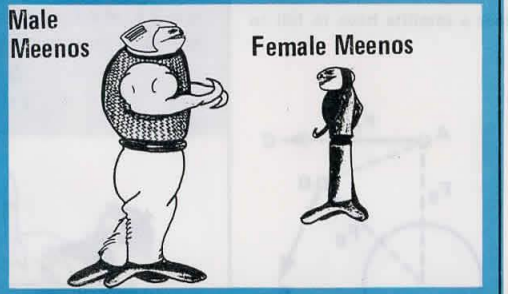
Many thanks to the Galactic Field Enterprises, Inc., the Galactic Museum, and InterUniversal Publications, Inc., and the invaluable assistance of Mr Robert Bettman.

Omicyg (H. supera)



"The most awesome creature in the universe, the Omicyg (homo supera) is also the most mysterious. Little is known about the Omicyg, other than that they are an extremely intelligent race, capable of unlimited telepathic powers, including the ability to combine their telepathic skills into one "mass-mind," allowing them to achieve even greater powers." –extracted from "Inhabitants of the Ring Nebula" in Asteroid magazine

Male Meenos / Female Meenos



"The most blood-thirsty mammal in the universe, the Meenos (homo taseir) are feared by every class of animal in the universe, and are not to be trusted. The mass-murdering, war mongering Meenos are concentrated in the Tocene system of the Whirlpool Galaxy. . .A fullgrown male Meenos stands three meters high and weighs 190 kilograms."
–extracted from Manual of the Life and Psychology of the Meenos

RUNNERS-UP

Stan D. Ewert
Colgate, WI

Ben Mixson
Camden, SC

Michael Haworth
Yorba Linda, CA

Gene Esguerra
Tamuning, GUAM

Carl Regier
Richmond, CA

Evan Harrington
Brooklyn, NY

Mark McFerron
Mt. Vernon, KY

Rob Holt
Stone Mountain, GA

Robert Dannecker
Port Crane, NY

Roger Sathre, Jr.
Boise, ID

Todd Prullage
Henryetta, OK

Deen Kokatnur
Belle Mead, NJ

Lawrence Dong
Detroit, MI

Francis Pang
Stockton, CA

Steve Hamilton
Huntington Beach, CA

Becky Hancox
Toccoa, GA

Philip A. Rose
Centereach, NY

Chris Donahue
Northport, AL

Anthony Poon
S. San Francisco, CA

Olaf Martinson
Edinboro, PA

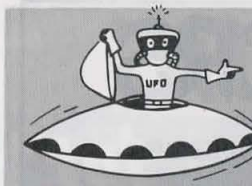
David Miller
Menasha, WI

Tony Reschke
Kelowna, BC, CANADA

David Hill
Lincoln, NE

W. McFarland III
Madison, FL

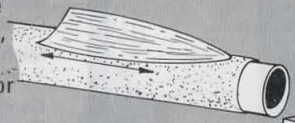
John Vice
Waterloo, ON, CANADA



THE IDEA BOX

Make Your Own Canopy

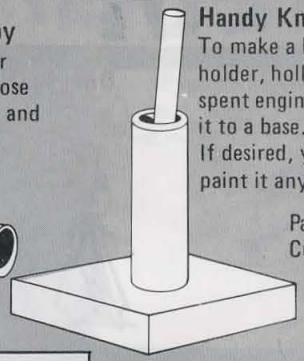
To make a canopy for your rocket, use a round balsa nose cone, remove the shoulder, and cut the nose cone lengthwise to the size you desire. Next wrap the body tube you want the canopy for, with fine sandpaper, and sand the canopy down for a perfect fit.



Peter Husk
Otterburn Park, Quebec CANADA

Handy Knife Holder

To make a handy knife holder, hollow out a spent engine and glue it to a base. If desired, you may paint it any color.



Paul Hamrick
Cullman, AL

Stump Your Teacher Quiz

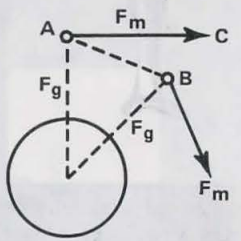
Question for your teacher: Who were Abel and Baker?

Answer: Abel was an American-born rhesus monkey. Baker was a South American squirrel monkey. They were launched on May 28, 1958 as part of the preparations for the manned phase of Project Mercury. They were launched by an Army Jupiter intermediate range ballistic missile and reached a speed of 10,000 miles per hour and an altitude of 300 miles during their 1,500 mile trajectory. They were recovered alive and well.

Question for your teacher: Why does a satellite have to fall to stay in orbit?

Answer: A moving object possesses a property called momentum. This property is measured by multiplying the mass of the object by its velocity.

$M = MV \rightarrow$ The momentum of the moving object at Point A tends to keep the object moving in the direction shown by the vector line F_m. However, the force of gravity as represented by vector line F_g tends to pull the object toward the center of the larger body. The result of these two forces acting on the moving object is that the object, instead of going straight to point C*, "falls" and goes to point B. The motion which results from the two primary forces acting on the moving body, momentum and gravity, is a circular path about the larger body. To use proper terms, the smaller body is called the satellite of the larger body or primary. The path followed by the satellite is its orbit about the primary satellite.



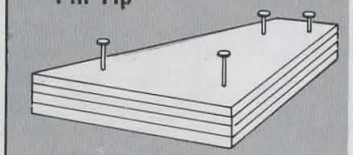
F_g = Force due to gravity
F_m = Force due to momentum
M = Momentum
m = Mass
v = Velocity

If the satellite did not fall, its momentum would cause it to keep going in a straight line. This would cause the satellite to escape the gravitational field of the primary so it would no longer be a satellite

*Newton's First Law of Motion - A body at rest will remain at rest, and a body in motion will continue in motion with constant speed in a straight line as long as no unbalanced force acts on it.

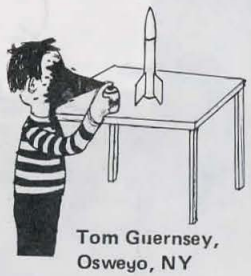
***(For a more detailed explanation, refer to Model Rocket News, for November 1968, (pages 8 & 9), September 1969 (pages 8 & 9), or The Laws of Motion and Model Rocketry, (pages 1 & 2).)**

Fin Tip



After cutting the fins for your rocket, make them all the same size by pinning them together and then sanding them.

Martin Zelina
Fallston, MD



Tom Guernsey,
Oswego, NY

"You see, my counter part and I found it during one of our adventures, and we're returning it."

Mark R. Sinicki
Bay City, MI

THE FORCE

WINNER DECEMBER 1977 DESIGN OF THE MONTH CONTEST
By LARRY STEIN Milwaukee, WI

The Force incorporates two new ideas in one model rocket. First, it has a new fin design. The fins point upward instead of down. Second, it has an interchangeable payload which allows the rocket to be used not only for racing and sport but also for experiments. These factors make the "good-looking" Force a more versatile rocket.

Build THE FORCE with Estes High Performance Parts and Accessories

SKILL LEVEL 2

PARTS LIST

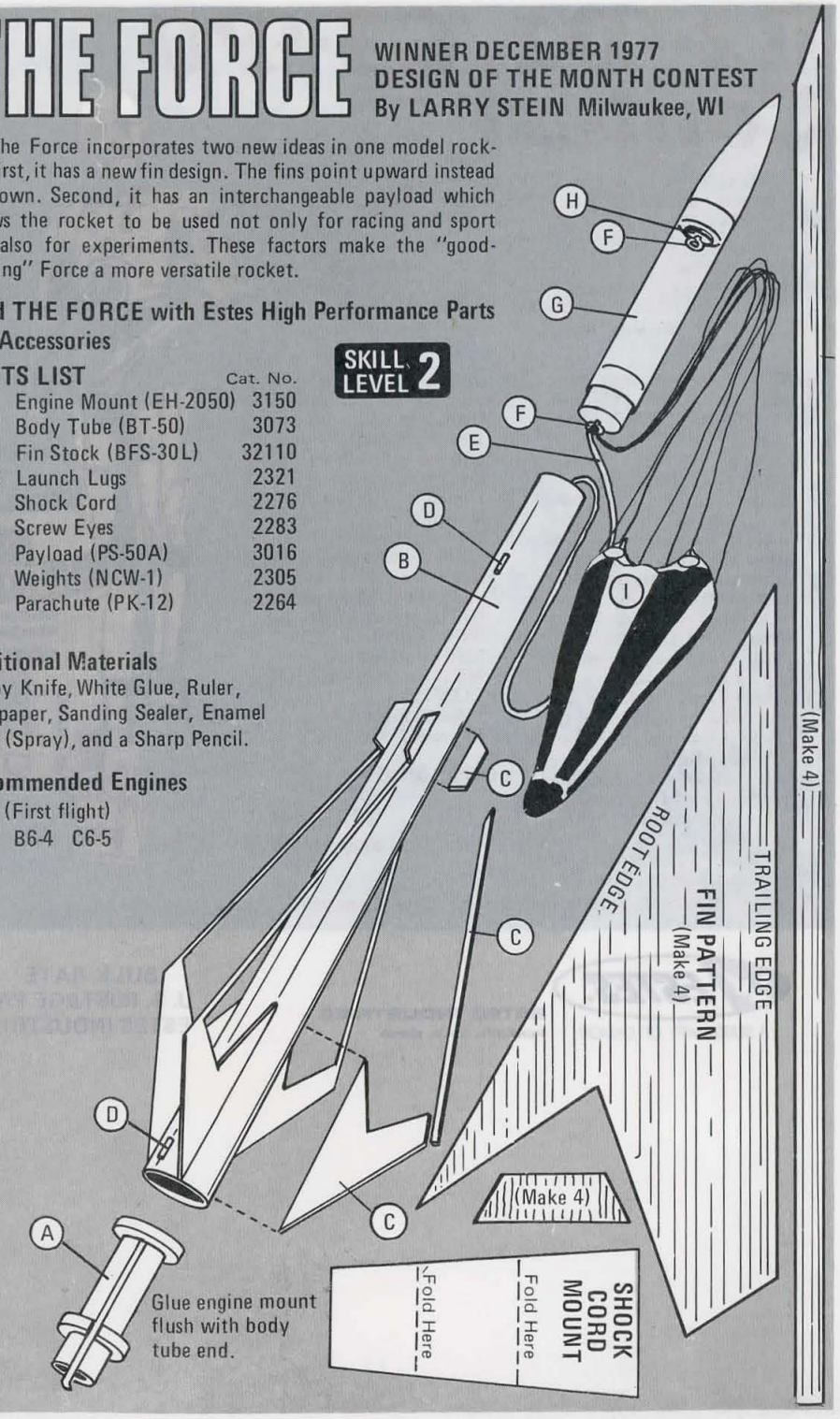
			Cat. No.
A)	1	Engine Mount (EH-2050)	3150
B)	1	Body Tube (BT-50)	3073
C)	1	Fin Stock (BFS-30L)	32110
D)	2	Launch Lugs	2321
E)	1	Shock Cord	2276
F)	2	Screw Eyes	2283
G)	1	Payload (PS-50A)	3016
H)	1	Weights (NCW-1)	2305
I)	1	Parachute (PK-12)	2264

Additional Materials

Hobby Knife, White Glue, Ruler, Sandpaper, Sanding Sealer, Enamel Paint (Spray), and a Sharp Pencil.

Recommended Engines

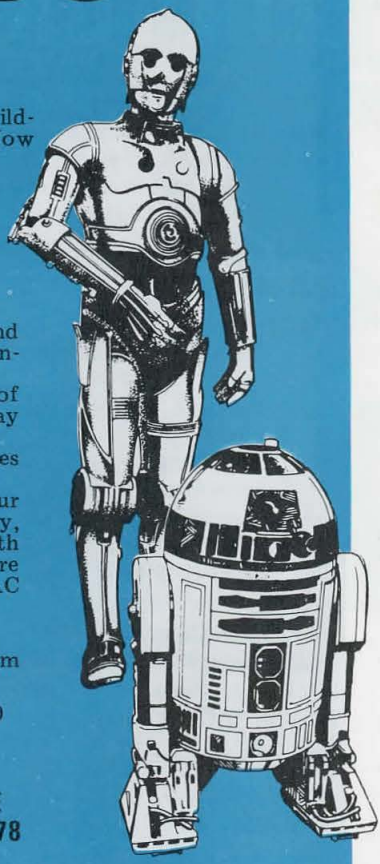
A8-3 (First flight)
B4-4 B6-4 C6-5



R2-D2/C3-PO Contest

You've seen STAR WARS! You're about to start building the incredible X-Wing, TIE, Scale flying models. Now enter this contest and win any of the following:

Grand Prize	$100 in Merchandise
First Prize	$ 50 in Merchandise
2nd Prize *(3 Awarded)*	$ 25 in Merchandise
3rd Prize *(10 Awarded)*	$ 10 in Merchandise
4th Prize *(50 Awarded)*	"New" Wizard Kit



RULES:

1. What will the next generation of R2-D2 and C3-PO look like? Since the Rebel Forces have destroyed the Death Star, they now are preeminent in the Universe, and can afford all the latest technology. Do one or two drawings, plus write complete descriptions of the capabilities of new cousins to Artoo and Threepio.
2. You may enter as many times as you like.
3. Employees of Estes Industries or members of their immediate families are not eligible.
4. All entries become the property of Estes Industries and cannot be returned.
5. Entries will be judged for creativity, completeness, design originality, and unique background information.
6. Deadline for receipt of entries is midnight May 15, 1978.
7. Decision of the judges is final.
8. Be sure to include your name, age, address, city, state, and zip code with each entry. Also, be sure to include your EAC Skill Level.
9. Mail entries to:
   MRN STAR WARS$_{tm}$
   CONTEST
   Estes Industries
   Penrose, CO 81240

GOOD LUCK!

DEADLINE
May 15, 1978

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